REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested.

The amendment to the claims further defines what the applicants regard as the invention. Full support for the amendment can be found throughout the present application, including the claims as originally filed and the present specification at page 4, line 20 through page 6, line 19 and elsewhere. Claims 1 - 41 are pending in the application. Claims 1, 19, 22, and 41 are amended to add features recited in the specification at page 4, line 20 through page 6, line 19. Claims 6 and 27 are amended to correct an informality. Accordingly, no questions of new matter should arise, and entry of the amendment is respectfully requested.

Rejection of claims 1, 3 - 5, 8 - 11, and 41 under 35 U.S.C. §102(b) over Maley et al.

At page 2 of the Office Action, the Examiner rejects claims 1, 3 - 5, 8 - 11, and 41 under 35 U.S.C. §102(b) as being anticipated by Maley et al. (U.S. Patent No. 5,770,028). The Examiner alleges that Maley et al. describes an electrochemical-sensing apparatus comprising conductive modified particles, such as electrically-conducting carbon or graphite powder particles, having at least one organic group attached to the particles. Additionally, the Examiner alleges that Maley et al. describes the use of carbon black materials and carbon particles that may include a metal substrate layer coating having platinum. Further, the Examiner alleges that Maley et al. describes an aggregate having carbon or graphite particles and finely divided platinum group metal either deposited or adsorbed onto the carbon or graphite particles, which the Examiner alleges is equivalent to an aggregate having a carbon phase and a metal-containing phase. Regarding claim 41, the Examiner alleges that Maley et al. teaches that an enzyme may be

immobilized directly to the carbon or graphite particles by way of the incorporation of organic functional groups and that any suitable carbon or graphite powder that readily permits the subsequent immobilization of an enzyme may be used to form the active layer. The Examiner further alleges that the carbon particles comprise organic functional groups such as carboxylate, amino and sulfur-containing functional groups on their surface. For the following reasons, this rejection is respectfully traversed.

The present invention as defined in independent claims 1 and 41 relates to a sensor for detecting the presence of an analyte in a fluid. The sensor comprises a layer comprising conductive modified particles, wherein the sensor is electrically connected to an electrical measuring apparatus. As explained in the specification on page 4, line 20 through page 6, line 19, and as specified in claim 1, the layer comprising conductive modified particles has a preexisting resistance that is altered in the presence of the analyte. As explained, for example on page 2, lines 27 - 29, an advantage of the present invention is that it allows for a greater change in resistance, that is, a greater sensitivity of a sensor to the presence of an analyte.

Maley et al., on the other hand, is directed to a completely different type of sensor, which operates on a completely different principle than the sensor of the present invention. In particular, Maley et al. describes a glucose sensor that enzymatically converts glucose to hydrogen peroxide, which transfers electrons to an electrode, thereby directly generating a flow of current that is proportional to the amount of glucose that was present (see, for example col. 1, line 63 to col. 2, line 15 of Maley et al.). As discussed below and in Applicants' previous response, Maley et al. does not teach or suggest conductive modified particles of the present invention, wherein the conductive modified particles comprise carbon products or colored pigments having attached at least one organic group, aggregates comprising a carbon phase and a

silicon-containing species phase and optionally having attached at least one organic group, aggregates comprising a carbon phase and metal-containing species phase optionally having attached at least one organic group, silica-coated carbon blacks, or combinations thereof. To the extent that Maley et al. discusses conductive particles at all, the particles are merely conductive support particles for the enzyme electrode (see col. 2, line 64 to col. 3, line 52). Accordingly, the apparatus of Maley et al. does not teach or suggest the limitation of claim 1 that the layer comprising conductive modified particles has a preexisting resistance that is altered in the presence of the analyte. In particular, there is no disclosure that glucose, which is the analyte of Maley et al., has any effect on the resistance of any layer of particles. Instead, any electrical effects that are produced and measured in the device of Maley et al. are the result of the enzymatic degradation of glucose by the enzyme electrode and the generation of hydrogen peroxide, which is directly detected by the release of electrons by the hydrogen peroxide to generate a current. Accordingly, Maley et al. do not teach or suggest the structure of the sensor claimed in claims 1, 3 - 5, 8 - 11, and 41.

Moreover, as discussed in Applicant's previous response, Maley et al. does not teach or suggest conductive modified particles that comprise carbon products or colored pigments having attached at least one organic group, aggregates comprising a carbon phase and a silicon-containing species phase and optionally having attached at least one organic group, aggregates comprising a carbon phase and metal-containing species phase optionally having attached at least one organic group, silica-coated carbon blacks, or combinations thereof as required by independent claim 1 or conductive particles have at least one organic group <u>directly</u> attached to the particles as required by claim 41. Maley et al. describes a working electrode that has an active layer includes that an enzyme immobilized into an electrically conducting support

member. The electrically conducting support member is described as a porous layer of resin-bonded carbon or graphite particles onto which a finely divided platinum group metal has been intimately mixed, or deposited, or adsorbed onto the surface of the individual particles prior to bonding to form the layer. An enzyme is then immobilized or adsorbed onto a porous layer of resin bonded platinized carbon particles. Even if the enzyme were to be considered to fit the limitation of an "organic group" as alleged by the Examiner, there is no teaching or suggestion that the enzyme is directly attached to carbon or graphite particles. At most, it appears that the enzyme adsorbs onto platinum or is held in the mixture that is used to make the active layer by a binder (see col. 15, lines 34 - 36). Moreover, regarding the Examiner's allegation that the carbon particles comprise organic functional groups such as carboxylate, amino and sulfur-containing functional groups on their surface, these would not be considered as organic groups as defined herein and since they are part of the surface of the particles described in Maley et al., they would not be considered "attached" surface groups. Moreover, the discussion in Maley et al. of platinum deposited on carbon particles, such as, for example, by vapor phase deposition, electrochemical deposition, or simple adsorption, does not fit the definition of an "aggregate comprising a carbon phase and metal-containing species phase." An aggregate comprising a carbon phase and a metal-containing species phase is a co-fumed product having multiple phases, which are part of the same aggregate and which are not considered different particles that are bonded together. See, for example the description on page 9, line 29 to page 10, line 3 of the specification. Accordingly, the particles described in Maley et al., of platinum deposited onto carbon particles does not meet the definition of "aggregate" as used in the present application.

Accordingly, for all of the above reasons, this rejection should be withdrawn.

Rejection of claims 1, 3, 6, and 10 under 35 U.S.C. §102(e) over Dai et al.

At page 2 of the Office Action, the Examiner rejects claims 1, 3, 6, and 10 under 35 U.S.C. §102(e) as being anticipated by Dai et al. (U.S. Patent No. 6,528,020 B1). The Examiner alleges that Dai et al. describes a sensing apparatus comprising conductive modified particles (carbon nanotubes) having at least one organic group attached, such as an immobilized enzyme, to the particles. For the following reasons, this rejection is respectfully traversed.

The present invention relates to a sensor for detecting an analyte in a fluid, wherein said sensor comprises a layer comprising conductive modified particles. Dai et al., on the other hand, relates to carbon nanotube devices that are made up of either a single nanotube that bridges a space between two electrodes (see col. 4, lines 35 - 40 of Dai et al.) or a film that is made up of <u>interconnected</u> nanotubes formed *in situ* on a substrate and connected to electrodes (see col. 4, lines 41 - 57 of Dai et al.). Although it is possible to have nanotubes in the form of particles, as described, for example on page 9, line 14 of the present specification, this is not the form of nanotubes that is described in Dai et al., since it describes only a single nanotube or a nanotube <u>film</u>. Accordingly, Dai et al does not teach or suggest any structure that includes a layer of conductive modified <u>particles</u>.

Moreover, as discussed in Applicants' previous response, Dai et al. does not teach or suggest conductive modified particles as required in the present invention, even in the particular passages mentioned by the Examiner. In particular, even if an enzyme were to be considered as an organic group as proposed by the Examiner, the passages cited by the Examiner do not show the enzyme directly attached to nanotubes. As described in col. 5, lines 32 - 63, Dai et al. describes that gold is deposited on a nanotube by evaporation. Then, a monolayer of a thiol

having a carboxylic functional group is adsorbed onto the gold particles, and avidin is then attached to the carboxylic group. Clearly, therefore, any enzyme that is attached to a nanotube as described in col. 6, lines 1 - 4 of Dai et al. would have to be attached by way of the gold-thiol linkage as described, since Dai et al. does not describe any other way of attachment. Accordingly, Dai et al. does not teach or suggest any structure wherein an enzyme or any other functional group is actually attached to a nanotube.

Accordingly, this rejection should be withdrawn.

<u>Rejection of claim 41 under U.S.C. §102(e) over Snow et al.</u>

At page 3 of the Office Action, the Examiner rejects claim 41 under 35 U.S.C. §102(e) as being anticipated by Snow et al. (U.S. Patent No. 6,221,673 B1). The Examiner alleges that Snow et al. describes a sensing apparatus having a layer of conductive modified particles, wherein the apparatus is electrically connected to an electrical measuring apparatus, wherein the conductive modified particles include conductive particles having at least one organic group attached to the particles. For the following reasons, this rejection is respectfully traversed.

The present invention in the particular embodiment described in claim 41 relates to conductive modified particles that comprise conductive particles having at least one organic group <u>directly</u> attached to the particles. Snow et al., on the other hand, only shows ligands that are attached to particles by way of an intermediary, such as a sulfur or nitrogen atom (see col. 4, line 55 to col. 5, line 18 and the specific examples of Table 1 and Table 2 of Snow et al.). A sulfur or nitrogen atom attachment does not equate to "direct" attachment of an organic group. Therefore, Snow et al. does not teach or suggest the claimed invention. Accordingly, this rejection should be withdrawn.

Rejection of claims 2, 19 - 26, 29 - 32, and 33 - 40 U.S.C. §103(a) over Maley et al.

At page 5 of the Office Action, the Examiner rejects claims 2, 19 - 26, 29 - 32, and 33 - 40 under 35 U.S.C. §103(a) as being obvious over Maley et al. Regarding claims 2, 22 - 25, and 31, the Examiner alleges that Maley et al. teaches an electrochemical sensing apparatus comprising conductive modified particles such as electrically conducting carbon, or graphite powder particles having at least one organic group attached such as an immobilized enzyme, to the particles. The Examiner acknowledges that Maley et al. does not specifically describe an array of sensors, wherein the array comprises two or more sensors. However, the Examiner alleges that the mere duplication of parts, without any new or unexpected results, is within the ambit of one of ordinary skill in the art. Moreover, the Examiner alleges that the use of a plurality of sensors arranged in an array configuration is well known in the art. The Examiner takes the position that it would have been obvious to incorporate an array of sensors within the sensing apparatus of Maley et al. in order to facilitate the detection and monitoring of a plurality of different chemical species within an environment. Regarding claims 22, 26, 29 and 32, the Examiner alleges that Maley et al. teaches the use of carbon black materials, and that these are well known in the art to be aggregated pigment materials. Regarding claim 30, the Examiner alleges that Maley et al. teaches that the carbon particles may further comprise a metal substrate layer coating comprising platinum. Regarding claims 33 - 37, the Examiner alleges that enzymes are proteinaceous materials composed of polymeric peptides well known in the art to comprise various functional organic groups, such as aromatic and ionic groups. Regarding claims 19 - 21 and 38 - 40, the Examiner alleges that Maley et al. teaches the structure recited in the claimed method, which the Examiner alleges, merely recites the conventional operation of that structure

and that the properties and functions of the structure are presumed to be inherent. The Examiner alleges that it would have been obvious to perform the method recited in the instant claims upon the apparatus of Maley et al. as the intended operation of that apparatus. For the following reasons, this rejection is respectfully traversed.

The arguments set forth above with respect to the earlier rejection in view of Maley et al. apply equally here. In particular, Maley et al. is directed to a completely different type of sensor, since it uses an enzyme electrode that measures an electric current generated by electrons released by hydrogen peroxide generated from the degradation of glucose and does not disclose a layer of conductive modified particles has a preexisting resistance that is altered in the presence of an analyte. The statement made by the Examiner that Maley et al. teaches the structure recited in the claimed method is therefore clearly in error with respect to the amended claims. Furthermore, Maley et al. does not teach an array of sensors as required by claims 2, 19 - 26, 29 - 32, and 33 - 40. As described on page 33 of the present specification, the use of an array of sensors allows one to obtain an odor signature of analytes by comparing the response of different sensors in an array to an analyte. The device of Maley et al. is directed to a sensor for determining the concentration of glucose in a clinical sample and uses an enzyme that specifically recognizes glucose. Contrary to what is alleged by the Examiner, there is no use taught or suggested by Maley et al. for detecting and monitoring a plurality of different chemical species within an environment. Accordingly, there is no motivation for incorporating an array of sensors within a sensing apparatus of Maley et al. The remaining arguments by the Examiner and the Examiner's modification of the device of Maley et al. is simply not taught or suggested in Maley et al., the only cited reference in this rejection. Further, no proper motivation has been shown in the prior art regarding the alteration of the device of Maley et al., which has a different

purpose and uses different components. Further, the Examiner's comments of what is "notoriously well known in the art" is respectfully traversed. The Examiner has not provided any teaching or suggestion of the claimed subject matter. As stated above, Maley et al. relates to a different device, and the Examiner's argument and attempt to substitute the components of the device of Maley et al. for components similar to what is recited in the claimed invention is without support of any prior art showing that such a modification is taught or suggested in the art. The Examiner further relies on the "reasonable expectation of success" standard; however, there must be motivation and a teaching or suggestion to provide this modification as proposed by the Examiner. Clearly, one skilled in the art would not modify a glucose and lactate sensor for the type of sensor set forth in the present application.

Accordingly, this rejection should be withdrawn.

<u>Rejection of claim 6 under 35 U.S.C. §103(a) over Maley et al. in view of Dai et al.</u>

At page 7 of the Office Action, the Examiner rejects claim 6 under 35 U.S.C. §103(a) as being unpatentable over Maley et al. in view of Dai et al. The Examiner acknowledges that Maley et al. does not specifically teach the incorporation of carbon nanotubes for sensing. The Examiner alleges that Dai et al. teaches the use of carbon nanotubes in a biological sensor, wherein the biological molecules, such as an enzyme can be attached to the nanotube. The Examiner further alleges that Dai et al. recognizes that there is a need in the art for sensing devices that provide not only significant and robust, but more advantageously, tunable response to a variety of chemical and biological species. In addition, the Examiner alleges that both of the disclosures of Dai et al. and Maley et al. are directed to sensing devices for detecting glucose and that both of the sensors function in a similar manner based upon using an electrochemical

response. The Examiner takes the position that a person skilled in the art would have recognized the suitability of incorporating the teachings of Dai et al. with the sensing apparatus of Maley et al. for the intended purpose of facilitating the effective sensing operation of a biological sensor and that it would have been obvious to incorporate the use of a carbon nanotube, as taught by Dai et al. with the sensing apparatus of Maley et al. in order to facilitate detection. For the following reasons, this rejection is respectfully traversed.

The arguments set forth above with respect to Maley et al. and Dai et al. apply equally here. Furthermore, Maley et al. does not teach or suggest any of the particular types of conductive modified particles as required in claim 6. As noted above, in Dai et al., the nanotubes are limited to either a single nanotube that bridges a space between two electrodes or a film that is made up of interconnected nanotubes formed. Dai et al. does not teach or suggest nanotubes that are conductive modified particles and that have attached organic groups.

Therefore, the combination of the references does not teach or suggest the claimed invention. Accordingly, this rejection should be withdrawn.

Rejection of claims 1 - 3, 6, 10, 12 - 18, 22 - 24, 27, 31, and 33 - 40 under 35 U.S.C. §103(a) over Lewis et al. (U.S. Patent No. 5,571,401) in view of Dai et al.

At page 8 of the Office Action, the Examiner rejects claims 1 - 3, 6, 10, 12 - 18, 22 - 24, 27, 31, and 33 - 40 under 35 U.S.C. §103(a) as being unpatentable over Lewis et al. (U.S. Patent No. 5,571,401) in view of Dai et al. The Examiner alleges that Lewis et al. describes a sensing apparatus comprising a first and second sensor electrically connected to an electrical measuring apparatus, wherein the first sensor comprises a region of nonconducting organic polymer material and a region comprising conductive particles, such as carbonaceous materials, and an

electrical path through the regions of nonconducting material and conductive particles. The Examiner acknowledges that Lewis et al. does not specifically teach that the conductive modified particles include conductive particles having at least one organic group attached to the particles. The Examiner alleges that Dai et al. describes the use of carbon nanotubes in chemical sensors and that Dai et al. further describes that the nanotubes can be physically or chemically modified, so as to be tailored for a particular sensing application. The Examiner further alleges that Dai et al. teaches that sensing agents can be deposited onto the nanotubes so that sensitivity to a wide range of chemical species can be achieved and that Dai et al. teaches a sensing apparatus comprising conductive modified particles having at least one organic group attached, such as a mobilized enzyme, to the particles, and that, as evidenced by Dai et al., organic polymers can be attached or deposited onto the nanotubes and thereby serve as effective sensing agents. The Examiner takes the position that it would have been obvious to incorporate the teachings of Dai et al. with the sensing apparatus of Lewis et al. Regarding claims 12, 13, 15, 16, 33, 34, 36, and 37, the Examiner alleges that Dai et al. teaches the incorporation of various polymers, such as polymethylmethacrylate or biomolecules such as enzymes, which are allegedly well known in the art to be proteinaceous materials comprising various functional groups. Regarding claims 14 and 35, the Examiner alleges that Dai et al. teaches the incorporation of a thiol functional group. Regarding claim 17, the Examiner alleges that Lewis et al. teaches that each sensor provides a different response for the same analyte with a detector that is operatively associated with each sensor. Regarding claim 18, the Examiner alleges that Lewis et al. teaches that the sensing elements for each sensor are compositionally different from each other. Regarding claims 19 - 21 and 38 - 40, the Examiner alleges that Lewis et al. in view of Dai et al. teaches the structure recited in the claimed method, which the Examiner alleges merely recites the conventional

operation of that structure and that the properties and functions of the structure are presumed to be inherent. The Examiner further alleges that Lewis et al. teaches that the method and apparatus essentially comprise a means for comparing the response with a library of responses to match the response in order to determine the presence of an analyte or the concentration of the analyte. The Examiner takes the position that it would have been obvious to perform the method recited in the instant claims upon the apparatus of Lewis et al. in view of Dai et al. as the intended operation of that apparatus. For the following reasons, this rejection is respectfully traversed.

Lewis et al. describes sensors having conventional conducting and non-conducting materials arranged in a matrix of conducting and non-conducting regions. These sensors are conventional in nature. However, the claimed invention differs significantly from Lewis et al. As set forth in claim 22 of the present application, the sensor includes a layer comprising conductive modified particles. The modified particles of the claimed invention can be, for instance, conductive particles having at least one organic group attached to the particles. The wide variety of conductive particles, the specific structural details of the conductive modified particles, and the methods of making such particles are set forth at great length in the application, for instance, at page 7, line 18 - page 12, line 21, and in the publications or documents incorporated by reference therein. Other detailed examples of organic groups that can be attached are found throughout the application. For instance, the use of polymeric groups is described at page 18, line 1 - page 19, line 24 of the present application.

By contrast, Lewis et al. does not teach or suggest the use of conductive modified particles as shown in the present application. While there is an isolated reference to carbon black in Lewis et al. at col. 4, no mention of organic groups being <u>attached</u> to these particles are made. The species listed in Lewis et al., at cols. 3 and 4, are varied, but the Examiner has not identified

any specific reference to the kind of modified particles described in the present application. The carbon black of Lewis et al. is a conventional carbon black. Furthermore, Lewis et al. does not teach or suggest conductive particles having at least one organic group attached to the particles and does not teach or suggest carbon products having attached at least one organic group, colored pigments having attached at least one organic group, or combinations thereof.

The arguments set forth above with respect to Dai et al. apply equally here. In summary, Dai et al. does not teach or suggest conductive particles having at least one organic group attached to the particles wherein the conductive modified particles include carbon products having attached at least one organic group, colored pigments having attached at least one organic group, or combinations thereof. As discussed above, nanotubes that are described in Dai et al. are either a single nanotube that bridges a space between two electrodes or a film that is made up of interconnected nanotubes. Since Dai et al. does not teach or suggest nanotubes that are in the form of particles, the apparatus of Lewis et al., which requires conductive <u>particles</u> cannot be combined with the single nanotube or nanotube film of Dai et al. to achieve the invention of claims 1 - 3, 6, 10, 12 - 18, 22 - 24, 27, 31, and 33 - 40. The combination would not form a matrix of conductive and non-conductive regions such as is described in Lewis et al.

Even if one skilled in the art were to combine Lewis et al. and Dai et al., the combination of the two references does not teach or suggest conductive particles having at least one organic group attached to the particles, wherein the conductive modified particles include carbon products having attached at least one organic group, colored pigments having attached at least one organic group, or combinations thereof. As discussed above, the combination of the two references does not teach or suggest that at least one organic group is <u>directly</u> attached to the particles. In fact, as stated above, the thiol group of Dai et al. is applied to the gold particles.

Therefore, Dai et al. simply does not teach or suggest direct attachment of at least one organic group to the carbon product or pigment.

Therefore, the combination of the references does not teach or suggest the claimed invention. Accordingly, this rejection should be withdrawn.

Rejection of claims 25, 26, and 30 under 35 U.S.C. §103(a) over Lewis et al. in view of Dai et al. and further in view of Foulger et al.

At page 10 of the Office Action, the Examiner rejects claims 25, 26, and 30 under 35 U.S.C. §103(a) as being unpatentable over Lewis et al. in view of Dai et al. and further in view of Foulger et al. (U.S. Patent No. 6,315,956 B1). The Examiner alleges that Lewis et al. teaches the incorporation of carbon black, as a particulate conductive or conductive filler material within a matrix of nonconductive organic polymer material comprising the sensing material. The Examiner acknowledges that neither Lewis et al. nor Dai et al. specifically teach that the conductive particles comprise carbon black having attached at least one organic group. The Examiner alleges that Foulger et al. describes the use of conductive filler materials comprising, *inter alia*, carbon black and carbon nanotubes, within an electrochemical sensor, in which the sensitivity and dynamic range of the electrochemical sensor is highly dependent on the conductive filler material. The Examiner further alleges that Foulger et al. teaches that the conductive filer material may be any suitable material exhibiting conductivity and should have a structure that results in an inherently high conductivity with an affinity to develop a strong network. The Examiner takes the position that a person of ordinary skill in the art would have recognized the functional equivalence of carbon black and carbon nanotube materials, as a particulate conductive or filler material used in sensing applications and that it would have been

obvious to substitute and incorporate the known equivalent carbon black material, as allegedly taught by Foulger et al. having an attached organic group, as allegedly taught by Dai et al., with the sensing apparatus of Lewis et al. in order to provide an effective sensing operation. Regarding claim 26, the Examiner alleges that it is well known in the art that carbon black is a pigment material. Regarding claim 30, the Examiner alleges that in Dai et al., the carbon nanotubes may be coated with metal particles, which impart sensitivity to a particular chemical species. The Examiner takes the position that it would have been obvious to incorporate conductive particles comprising at least partially coated carbon black materials within the sensing apparatus in order to provide for optimal sensor operation for a particular sensing application. For the following reasons, this rejection is respectfully traversed.

The arguments set forth above with respect to Lewis et al. and Dai et al. apply equally here.

Foulger et al. relates to an electrochemical sensor made from conductive polymer composite materials and methods of making same. According to Foulger et al., the conductive filler material may be any suitable material exhibiting conductivity, and should have a chemical structure which results in an inherently high conductivity with an affinity to develop a strong network. The conductive filler may be selected from the group consisting of carbon black, graphite, metallic particles, intrinsically conductive polymers, carbon fiber, nanotubes, and mixtures thereof. Foulger et al., however, does not teach or suggest that the conductive modified particles include carbon black having attached at least one organic group as required by claims 25, 26, and 30. No discussion of carbon blacks having attached at least one organic group exists in Foulger et al. In fact, Foulger et al. merely states that the carbon black can be part of the polymer blend used to form the electrochemical sensor. Merely putting carbon black in a

polymer blend is not at all the same as attaching an organic group onto carbon black. There is no teaching or suggestion in Foulger et al. that any part of the polymer actually attaches onto the carbon black. Thus, Foulger et al. merely relates to a conventional polymer blend which includes a variety of components. Clearly, this is quite different from the claimed invention. Moreover, as discussed above, the single nanotube or nanotube film described in Dai et al. is not the functional equivalent of either nanotube particles or carbon black particles. Furthermore, Dai et al. does not describe organic groups that are attached directly to a nanotube, but only describes an enzyme that is attached to a nanotube through an intermediary or a metal film and a thiol group or a polymer coating over a nanotube film. Moreover, Dai et al. does not contain any teaching or suggestion to attach organic groups to particles.

Therefore, the combination of the references does not teach or suggest the claimed invention. Accordingly, this rejection should be withdrawn.

CONCLUSION

In view of the foregoing remarks, the applicants respectfully request the reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 03-0060. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,

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